Contact

www.linkedin.com/in/earonesty
(LinkedIn)
www.documentroot.com/
(Personal)
www.mooncostumes.com/
(Company)
www.triadsecurities.com (Other)

Top Skills

Management

Python

C++

Certifications

CFA

Publications

Comparison of Sequencing Utility
Programs

[Abstract]Exome-based method to
determine cancer tissue of origin

Encapsulated Search Index: Public-
Key, Sub-linear, Distributed, and
Delegatable

Erik Aronesty

Chief Technology Officer at Atakama
New York, New York, United States

Summary

Computer developer with over 25 years of broad experience in
programming, systems architecture, language creation, multiplayer
gaming, database design, statistical analysis, and a lot more. Fields
have included legal, finance, entertainment and biotech. Started
and sold off some pure internet/technology companies, then went
back to school got an MS in bioinformatics, worked on genomic
data analysis software (HiSeq/PacBio/IonTorrent).   Did some high-
speed NLP and LSTM stuff for Bloomberg.   Currently building an
endpoint multifactor encryption solution using some fun elliptic curve
techniques.
Specialties: C, C++, Perl, Python, R, TCP/IP, Theano, DNS, PGSQL,
MSSQL, MYSQL, Linux, BSD, Windows, etc.

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Experience

Atakama
Chief Technology Officer
September 2017 - Present (5 years 1 month)
Greater New York City Area

Developing a more granular, more powerful and deeply multilayered endpoint
encryption system using ECC for personal and enterprise security. C++/
python/mobile-js apps + abstracted TLS. Targeting 5 platforms using QT &
react.

Bloomberg LP
Sr. Software Engineer
October 2014 - September 2017 (3 years)

Manage, design and code C++ projects related to data mining, pattern finding
and NLP infrastructure.   Modernize SQL database & high-speed caching
architecture. Develop simplified LSTM training and normalization system
in Keras for various NLP-like data extraction tasks. Built a general purpose
"streaming anomaly detection" library in C++ using real-time histograms and
some Poisson assumptions.

Quintiles
Senior Bioinformatics Architect
December 2010 - October 2014 (3 years 11 months)

Maintain HPC and develop bioinformatics pipeline for multiple high throughput
sequencers (Illumina, PacBio LifeTech).   Published the "ea-utils" package
for sequencing quality control and statistics. Developed pipeline for CEL file
generation from FPKM values output from RSEM or tophat. Developed a
novel variant-calling pipeline in C++, with p-values based on quality + Poisson
assumptions. Responsible for building a peta-scale compute and storage
cluster with over 3TB/day of ingest data, and more than 6TB/day of processed
client output.

Triad Securities
Consultant
May 1999 - May 2014 (15 years 1 month)

Used MSSQL/ORACLE, VC++ , VBA, Perl. Developed the language "SMX" for
rapidly creating
financial reporting websites (see smxlang.org)). Continue to provide occasional
cosulting
services for these clients.

Moon Costumes
Owner
September 2006 - July 2012 (5 years 11 months)

Started a retail costumes sales company. Created a novel e-commerce
platform with fully automated, marketing, purchase & fulfillment systems.
Integrated the software with dozens of vendors, banks, Paypal, Adwords,
various payment systems, etc. At the time of sale, Moon was one of the top 10
internet retail costume companies.

ZoneEdit, Inc.
CEO
August 2000 - August 2005 (5 years 1 month)

Started a DNS company that swiftly became one of the largest DNS
companies in the
world. Hosted the entire .GOV registry. Provided advanced DNS solutions to
Verisign.

Designed a secure and scalable infrastructure using Linux, C++, Perl.
Reposible for press releases, networking, sales, advertising and marketing.

Developed a strategic employee infrastrucutre, outsourcing relationships, and a stable management structure.

Sold the company to Dotster.

Prime Data Corp, NY
Owner/Programmer
January 2000 - March 2003 (3 years 3 months)

Founded a financial information systems consulting firm. Developed a broad range of
portfolio trading applications, financial web portals and risk-analysis applications for

Bank of America
Programmer
May 1996 - August 2000 (4 years 4 months)

Developed a financial transaction processing system in Lotus Notes. Created an Internet
presence for Montgomery called PrimeBroker.com, which was an industry first. Had to start
a new department, hire developers. Built online graphing apps, tools for rendering
database queries to HTML. Integrated old mainframe data with web content delivery. Created
an award-winning Microsoft Excel based real-time portfolio application which combined data
from AS400, ADP, the Internet, and DDE feeds into a single "live P&L".

Interfilm
Programmer
March 1995 - May 1996 (1 year 3 months)

Worked with a great team to develop a platform for world's first interactive feature-length movies.

Software controlled online graphics overlay onto the movie, game play and flow, millisecond-accurate laser-disc cueing video switching. Authoring tool allowed storyboards to be
converted directly into game playing engine.

Young & Rubicam

Software Engineer
May 1993 - August 1995 (2 years 4 months)
New York, NY

Worked extensively with Lotus Notes APIs to design a series of media delivery applications.   Laser disc banks were used along with switching hardware to stream stored video media.   Tag and document indexes in Lotus Notes were integrated into a seamless video archive experience.

Education

The Johns Hopkins University
M.S., Bioinformatics · (2009 - 2012)

Rutgers University
B.A., Computer Science, Psychology · (1989 - 1993)